Amendment Application No. 09/424,059

Attorney's Docket No. 001560-376

Page 26

## **REMARKS**

Entry of the foregoing and continued examination of the above-identified application is respectfully requested.

Claims 2-13, 17-28 and 38-41 are pending. Claims 11-13 and 26-28 have been canceled. New claims 44-73 are added by this amendment. Support for these claims may be found at the very least in prior claims 38-41. No new matter is added by this amendment.

Applicants note with appreciation the indication on page 4 of the Official Action that claims 11-13 and 26-28 would be allowable if rewritten in independent form. It is acknowledged that the prior art does not teach the use of benzoquinone compounds for treatment of inflammatory, autoimmune or viral disease. In view of this indication, claims 11-13 and 26-28 have been rewritten as independent claims 44, 54 and 64. Claims dependent therefrom have also been added. At the very least, these new claims 44-73 should be in condition for allowance.

Claims 2-10, 17-25 and 38-41 have been rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. This rejection, as it applies to the claims of record, is respectfully traversed.

Claims 38-41 are said to recite methods of treatment based on mechanisms of action. It is said to be unclear regarding which specific disorders are treated. According to the Official Action, the art made of record in the application teaches that the inhibition

Amendment Application No. <u>09/424,059</u> Attorney's Docket No. <u>001560-376</u> Page 27

of NF-κB and production of TNF-α seem to treat a number of similar diseases, such as inflammatory, blood coagulation, tumor growth, etc. The claims thus are allegedly "overlapping" in scope. This rejection is believed to be improper.

Claim 38 makes clear that the method is for inhibiting NF- $\kappa$ B, while claim 40 relates to inhibiting TNF- $\alpha$  production. One skilled in the art would clearly understand what it means to inhibit NF- $\kappa$ B or TNF- $\alpha$ . Claim 39 relates to treatment of diseases caused by the activation of NF- $\kappa$ B, while claim 40 relates to treatment of diseases caused by excessive production of TNF- $\alpha$ . As recognized in the Official Action, the art recognizes diseases caused by the activation of NF- $\kappa$ B and excessive production of TNF- $\alpha$ . These claims are thus believed to be sufficiently clear to a person skilled in the art.

Simply because the claims are overlapping in scope does not make them indefinite.

For example, a dependent claim is always overlapping in scope with the independent claim from which it depends. All dependent claims are not indefinite for that very reason.

Claims 10 and 25 are said to lack antecedent basis. These claims have been amended to correct the antecedent basis.

In view of the above, withdrawal of the §112(2) rejection is respectfully requested and believed to be in order.

Claims 2-9, 17-24 and 38-41 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Suntory in view of Vassalli and Baeuerle. This rejection is respectfully traversed.

(09/02)

The Suntory reference is cited as teaching benzoquinone derivatives as claimed, for treatment of, for example, cerebral embolism, cerebral hemorrhage, senile dementia, Parkinson's, etc. Vassalli is cited as teaching that TNF exerts effects on hemorrhagic necrosis and that TNF acts on the brain. Baeuerle is said to be related to NF-κB to various biological conditions, e.g., thrombin, platelet activating factor, hemorrhage, etc. The Official Action concludes that, "given the relationship of TNF and NF-κB with hemorrhage and brain, one of ordinary skill in the art would have been motivated to extend the use of the known benzoquinone derivatives to modulate the effect of TNF and NF-κB."

The Suntory reference describes that the claimed compounds are useful for treatment of cerebral anoxia. The disclosed particular uses, such as for treatment of post cerebral embolism, etc., are derived from the cerebral anoxia. Cerebral anoxia is in no way related to the activation of NF- $\kappa$ B or to excessive production of TNF- $\alpha$ . Contrary to the assertion in the Official Action, the primary reference thus does not teach treatment related to NF- $\kappa$ B or TNF- $\alpha$ . Thus, there would be no motivation to use the known benzoquinone derivatives to modulate the effect of NF- $\kappa$ B or TNF- $\alpha$ .

Withdrawal of the §103(a) rejection is thus respectfully requested and believed to be in order.

In the event that there are any questions relating to this amendment or the application in general, it would be appreciated if the Examiner would contact the

Amendment Application No. <u>09/424,059</u> Attorney's Docket No. <u>001560-376</u> Page 29

undersigned attorney by telephone at (650) 622-2360 so that prosecution of the application may be expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: Thololk om Jora # 39,300

Donna M. Meuth

Registration No. 36,607

P.O. Box 1404 Alexandria, Virginia 22313-1404 (703) 836-6620

Date: June 17, 2003